

Type: Male in the collection of the author.

Described from three specimens. The type is absolutely perfect, taken in Maine. A co-type, labeled Webster, N. H., is a female in Professor Smith's collection. There is more suffusion, and less of the mahogany tinge, either sexual or because the specimen is older. A second co-type is in the Brooklyn Institute, found in Dr. McKnight's collection, labelled New Hampshire; a male, and though probably an old specimen, is only a little less brilliant than the type, with which, however, it agrees in all essential features.

EXPLANATION OF PLATE X.

- | | | |
|---------------------------------------|-----------------------------------|--------|
| Fig. 1. <i>Calocampa nupera</i> . | Fig. 5. <i>Calocampa brucei</i> . | |
| Fig. 2. " <i>curvimacula</i> . | Fig. 6. " <i>cinerita</i> . | Light. |
| Fig. 3. " <i>brillians</i> , sp. nov. | Fig. 7. " " | Dark. |
| Fig. 4. " <i>thoracica</i> . | | |

A GENERIC SUBDIVISION OF THE GENUS
PLUSIA.

BY HARRISON G. DYAR.

Dr. Ottolengui has asked me to review the species of *Plusia* and refer them to generic groups. I have done so with the following result. The generic term *Phytometra* is credited to Haworth by Guenée, but I have been unable to consult a copy of the *Lepidoptera Britannica*, as there is none to be found in Washington, Philadelphia or Boston. Agassiz's *Nomenclator* credits this genus to Stephens, and if this is correct, the term will cause no trouble, falling as a synonym.

Plusia accurata Hy. Edw., must be entirely excluded. The hind wings have the median vein "trifid," the male antennæ are pectinated and the palpi reach only about half way up the front. Dr. Barnes kindly communicated to me examples of this rare species.

Plusia is a typical Noctuid genus, belonging to the "quadrifinæ." Tongue developed, eyes naked, cell of hind wings normal. The thorax has a large spreading tuft and the abdomen is tufted basally. Front without prominent tubercle; ♂ antennæ ciliate. The following groups, some of which are of generic rank, may be recognized.

Palpi considerably exceeding the vertex of head.

Palpi upturned, evenly haired, third joint large, blade-like.

External margin even.....**Polychrysia.**

- External margin falcate below apex.....**Panchryisia.**
 Palpi obliquely ascending, second joint tufted below.
 Wings narrow with a scale tooth at tornus.....**Eosphoropteryx.**
 Palpi upturned, not, or but little exceeding vertex.
 Outer margin falcate; a scale tooth at tornus.....**Plusia.**
 Outer margin even.
 Eyes normal.
 Outer margin crenulate; a moderate tooth at tornus.....**Autographa.**
 Outer margin entire; scarcely any tooth at tornus.....**Euchalcia.**
 Eyes small, narrow.....**Syngrapha.**

Genus **Polychryisia** Hübn.

Hübner, Verz. bek. Schmett., 251, 1816. Type *moneta* Fabr.

“Die Schwingen mit einen ansehnlichen silbernen Mittzeichen bemerkt, fast gans gölden oder silbern scheinend, braunschattig angelegt.”

Hübner thus describes the genus, using colorational characters only. *Moneta* is mentioned, sole species and therefore type. The genus may be recognized by the characters given in the table. Of one of the American species, *Deva trabea* Smith, I may say that I am unable to differentiate it specifically from the European *moneta*. The other species, *formosa* Grt., has been discovered by Mr. Kearfott in the larval state. The genus *Chrysoptera* Latr., is synonymous.

Genus **Panchryisia** Hübn.

Hübner, Verz. bek. Schmett., 252, 1816. Type *deaurata* Esp.

“Die Schwingen unrichtig braun bezeichnet, ganz gölden und braunschattig angelegt.”

Type and sole species *aurea* Hübn., = *deaurata* Esp.; *Deva* Walk. (Cat. Brit. Mus., XIV, 1791, 1858) is synonymous. The only American species referable, that I know, is *purpurigera* Walk.

Genus **Eosphoropteryx**, nov.

Palpi obliquely ascending, second and third joints straight, exceeding the head by nearly twice its length, second joint long haired below, third long, flattened. Wings elongate, inner margin excavate, a tuft of scales at tornus; outer margin convex, entire. A thick double tuft on thorax, spreading; a dorsal tuft on third abdominal segment.

Named in allusion to the pink color on the wings of the type and sole species, *thyatiroides* Guen.

Genus **Plusia** Ochs.

Ochsenheimer, Schmett. Eur., IV, 89, 1816. Type *chrysis* Esp.

I follow Hampson in designating *chrysitis* as the type. *Agrapha* Hübn., of which *ærea* may be considered type, and *Diachrysia* Hübn., are synonyms. *Diachrysia* contains eight species in Hübner's work, but they appear congeneric and *orichalcea* Fab., the second species mentioned, may be regarded as the type. Four American species are referable here.

Genus **Autographa** Hübn.

Hübner, Verz. bek. Schmett., 251, 1816. Type *gutta* Guen.

“Die Schwingen mit goldenen oder sibernen Schriftzeichen geziert und metallisch glänzend gefärbt.”

Thirteen species are mentioned. The first species, *parilis*, is not congeneric with the others. Therefore I have taken the second species as type, *circumflexa* Hübn., (nec Linn.) = *gutta* Guen., a species practically identical with the American *simplex*. Under this restriction *Chrysodeixia* Hübn., type *chalcites* Esp., is synonymous. *Chrysaepidia* Hübn. may be likewise referred here. The majority of the American Plusias fall in this genus.

P. abrota Druce, described from Mexico, but now recorded from Florida, falls here. It differs in the enormously developed abdominal hairs; but these are not improbably a secondary sexual character of the male. *Brassica* has remarkably developed lateral tufts in the male and *verruca* and *oxygramma* have smaller ones. In the other species this character is not marked. *Snowi*, *sackeni* and *diasema* have yellow secondaries, but agree in the shape of the eyes with this genus.

Genus **Euchalcia** Hübn.

Hübner, Verz. bek. Schmett., 251, 1816. Type *illustris* Fab.

“Die Schwingen mit blassen Zeichen bemerkt, erbunt gefärbt.”

Hübner mentions three species, of which the first, *illustris* Fab., may be considered the type. The European *festuca* may be referred here also. The allied American forms, *contexta*, *putnami* and *striatella* will come here and *Deva ornata* Ottol., also. This latter has the aspect of a *Basilodes*, but lacks the frontal tubercle. It does not seem structurally different from *Euchalcia*.

Genus **Syngrapha** Hübn.

Hübner, Verz. bek. Schmett., 250, 1816. Type *hochenwarthi* Hoch.

“Die Schwingen mit metallglänzenweisen Schriftzeichen bemerkt, die Senken gelb gefärbt.”

Hübner includes three species under this definition. The first, *ain* Hübn., is not congeneric with the others, being referable to *Autographa*. I have therefore regarded the second, *divergens* Fab., = *hochentwarthi* Hoch., as the type. Under this restriction *Caloptusia* Smith is synonymous. The restriction was made by Guenée (Spec. Gen., VI, 355) in 1852, who excluded *ain* from his section *Syngrapha*. Hübner evidently intended to include all the yellow hind-winged *Plusias* in *Syngrapha*, but this group can not be structurally defined.

CONTRIBUTIONS TO THE KNOWLEDGE OF NORTH AMERICAN ARCTIIDÆ.—III.

(PLATE XI.)

BY OTTO SEIFERT.

Arctia radians Walker.

Apantesis radians WALKER, Cat. Lep. Het., pt. III, 1855, p. 632 (female).

Arctia phalerata var. *incompleta* BUTLER, Ann. Mag. Nat. Hist., Vol. VIII, 5th Ser., 1881, p. 311 (male).

Several *Arctia* larvæ were found hidden under boards during the daytime in rich hammock clearings at Island Grove, Florida, in different stages of development from the beginning of March to the middle of May. The larvæ were velvety black with a dorsal chain of milk-white spots and with reddish subventral hairs. They were fed with what appeared to be a variety of *Taraxacum*. First pupa obtained May 8th transformed to imago (♀) May 18th. Exposed at the hammock clearing, the ♀ was found with a ♂ the next morning and deposited eggs at once. These were taken to New York City, May 20th.

Eggs.—"Obtuse cones," light straw color with rather bright, apparently smooth surface, the fine reticulations only visible when magnified. Diameter at base about 0.65 mm. At the time of exposure the temperature at Island Grove was about 37° C. On arrival in New York the weather was continuously rainy and cold, almost without exception, the thermometer vacillating between 13° C. and 18° C. till nearly June. June 1st, early in the morning the young larvæ left their eggshells of which they ate the larger part and remained idly for hours